FINAL PROJECT

COMPARISON OF STANDARD EXHAUST AND RACING EXHAUST ON MACHINE PERFORMANCE

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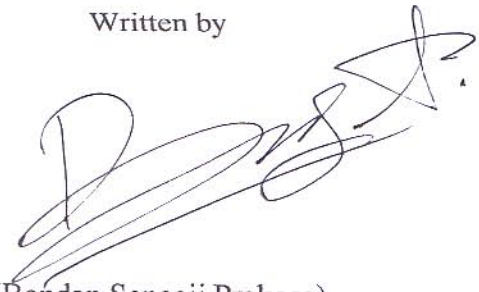
DECLARATION

I certify that the thesis entitled "**Comparison of Standard Exhaust and Exhaust Racing on Machine Performance**" is made to fulfill as a requirement to obtain a bachelor's degree in Kingston International Automotive Engineering Department, Muhammadiyah University of Surakarta, as far as I know is not an imitation of research or duplication of a thesis that has been duplicated and or has been used to obtain a bachelor degree in the Muhammadiyah University of Surakarta, except for some of the sources of information that I have listed as appropriate.

Surakarta, September 2017

Written by



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APPROVAL

The final project entitles **"Comparison Of Standard Exhaust And Racing Exhaust On Machine Performance"**, has been approved by supervisor and authorized by Director of International Program as partial fulfillment of the requirements for getting the Bachelor Degree of Engineering in Automotive Department of Muhammadiyah University of Surakarta.

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COMPARISON OF STANDARD EXHAUST AND RACING EXHAUST ON MACHINE PERFORMANCE

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ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui kinerja tenaga dan torsi pada mesin untuk menguji knalpot standar dan balap knalpot balap. Pada pengujian ini menggunakan roda motor Honda Tiger 2000 raft 2005. Pengujian kinerja mesin dilakukan dengan menggunakan Dynojet 250i. Pengujian dilakukan secara bergantian untuk setiap knalpot agar mendapatkan perbandingan kinerja daya dan torsi maksimum.

Hasil penelitian menunjukkan bahwa penggunaan knalpot balap menghasilkan kinerja yang lebih baik, yaitu performa maksimum yang lebih lama dan kinerja torsi maksimum yang lebih besar, dibandingkan dengan penggunaan knalpot standar. Knalpot balap menghasilkan tenaga maksimum 17,08 hp dan torsi maksimum 11,35 kaki-lbs (15,38 Nm), sedangkan knalpot standar menghasilkan tenaga maksimum 17,00 hp dan torsi maksimum 11,35 kaki-lbs (15,38 Nm).

Kata kunci: standar, balap, knalpot, kinerja

ABSTRACT

The purpose of this study is to determine the performance of power and torque on the engine to test the standard exhaust and racing exhaust racing. In this test using Honda Tiger 2000 motorcycle object raft 2005. Testing engine performance is done by using Dynojet 250i. The test is performed alternately for each exhaust in order to obtain the maximum performance comparison of power and torque.

The results show that the use of racing exhaust produces better performance, that is longer maximum performance and greater maximum torque performance, compared to standard exhaust usage. The racing exhaust generates an maximum power of 17.08 hp and an maximum torque of 11.35 ft-lbs (15.38 Nm), while the standard exhaust generates an maximum power of 17.00 hp and an maximum torque of 11.35 ft-lbs (15.38 Nm).

Keywords: standard, racing, exhaust, performance performance

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The writer realizes that this research paper is far from being perfect, so the writer sincerely welcomes any constructive comment, criticism, and suggestion.

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Surakarta, September 2017

The Writer

(Bondan Senoaji Prakosa)

MOTTO

- *"Verily, never will Allah change the condition of a people until they change it (their state of goodness)"*

  ... (Q.S. Ar-Ra'du: 11)

- *"Nay, seek (Allah's) help with patient perseverance and prayer: It is indeed hard, except to those who bring a lowly spirit"*

  ... (Q.S. Al-Baqarah: 45)

- *Try to not become a man of succes, but rather, try to become a man of value.*

- *Wise man talks because they have something to say. Fool man talks because they have to say something.*

- *If you cannot be a smart person, so be a good person.*

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